Treatment of photosensitive epilepsy using glasses tinted individually according to their effects on visual perception and asthenopia

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Intuitive colorimetry is a recently introduced technique that enables the perceptual effects of ophthalmic tints to be evaluated subjectively, optimized, and then prescribed in tinted spectacles. The system has proved of benefit in reducing visual stress in patients with dyslexia and migraine. We describe an open trial designed to ascertain: (1) whether the colorimetry assessment, as it is now given, is safe for the investigation of photosensitive patients in optometry clinics where colorimetry equipment is most readily available, but where electroencephalogram (EEG) control is not practical; (2) what proportion of patients are likely to benefit to the extent already described in individual cases of photosensitive epilepsy; (3) whether a tint selected by colorimetry could be shown to reduce the incidence of paroxysmal epileptiform EEG activity in response to flicker and patterns, thereby validating the subjective methods and corroborating the reported seizure reduction.

Twenty-four females and nine males (aged 12–43 years) took part. All the patients had suffered visually provoked seizures, exhibited a photoconvulsive response on at least one previous EEG recording, and received a diagnosis of photosensitive epilepsy. Twenty-two were currently experiencing seizures. An EEG was recorded in all except seven cases: a routine resting record, followed by hyperventilation. Colorimetry was performed after hyperventilation and before photic stimulation. Twenty-three (70%) reported beneficial effects during colorimetry and were prescribed glasses. Seventeen of these patients were available at follow-up, an average of 2.4 years later. Thirteen (57%) reported benefits, and said they were still using the lenses. In 6 of the 13 the benefits were pronounced, including a reduction of dizziness from fluorescent lighting, elimination of aura when using computer screens, etc. Only in three cases was there a reduction in seizures that could reasonably be attributed to the use of lenses; in two of these cases no medications were prescribed, and in the third the medications remained unchanged for 4 years, two before and two after the introduction of the glasses. In an additional four cases a reduction in seizures was observed but medication had been changed. There was a preponderance of lenses with a rose or purple colour in contradistinction to patients with dyslexia. In 8/8 patients there was a modest reduction in photosensitivity with the coloured lenses but also to an equivalent or lesser extent with grey. Only in one case was the reduction clearly greater with the coloured than that with the grey. In another patient lenses of the selected colour were compared with those of other similar colours and reduced the photosensitivity frequency range by a greater amount. One patient had seizures during colorimetry, but the seizures were not accompanied by scalp EEG changes.

Reflections on a phrase in King Lear 'A plague upon your epileptic visage'

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The phrase 'a plague upon your epileptic visage' in Shakespeare's King Lear is considered to be the first use of the word 'epilepsy' in the English language (OED) although we have found an earlier reference to the word. The phrase is used by Kent against Oswald: it is clearly meant to be derogatory and raises the interesting question as to whether a particular facial appearance was already equated with epilepsy before the days of Lombroso and phenytoin! However, textual analysis of the following lines after the phrase suggests that the reference may have been to syphilitic sores on the face rather than to epilepsy itself.

In King Lear there are clear descriptions of dissociation ('The Mother'), feigned madness and actual madness (delirium brought on by exposure to the elements). 'The Mother', a mixed bag of emotional symptoms which often included non-epileptic seizures ('Fits of the Mother') was considered to be an exclusively female disorder and Shakespeare has been credited with first describing it in a male: his source was a polemical report of court proceedings (Samuel Harsnett's) from which he also obtained his description of feigned madness (the case involved prosecution for carrying out exorcisms).